

**Maryland Historical Trust
Determination of Eligibility Form**

Property Name: Philadelphia Quartz Baltimore Plant **Inventory Number:** B-5193
Address: 1301 E. Fort Avenue **Historic District:** Yes X No
City: Baltimore **Zip Code:** 21230-5214 **County:** Baltimore City
USGS Quadrangle(s): Baltimore East
Property Owner: _____ **Tax Account ID Number:** _____
Tax Map Parcel Number(s): _____ **Tax Map Number:** 24
Project: Fort Avenue Bridge Replacement (Project No. TR-11309) **Agency:** Baltimore City Department of Transportation
Agency Prepared By: Straughan Environmental Services
Preparer's Name: Jennifer Crane **Date Prepared:** 08/02/2010
Documentation Is Presented In: _____
Preparer's Eligibility Recommendation: Eligibility Recommended X Eligibility Not Recommended
Criteria: A B C D **Considerations:** A B C D E F G
Complete if the property is a contributing or non-contributing resource to a NR district/property:
Name of the District/Property: _____
Inventory Number: _____ **Eligible:** Yes **Listed:** Yes
Site Visit by MHT Staff: Yes No **Name:** _____ **Date:** _____

Description of Property and Justification: (Please attach map and photo)

The Philadelphia Quartz Baltimore Plant does not possess the qualities of significance on the national, state, or local level necessary for listing in the National Register of Historic Places. Though the plant is generally associated with trends in early- to mid-twentieth-century urban industrial development, it is not associated with any specific events that have made a significant contribution to the broad patterns of our history, therefore it is not eligible under Criterion A.

The Philadelphia Quartz Baltimore Plant did not play a major role in Baltimore's chemical industry, which had less historic significance than other early- to mid-twentieth-century Baltimore industries such as coal and grain export, steel, brewing, and canning. Within the local industrial landscape of Locust Point, the Philadelphia Quartz plant lacks significance when compared to larger plants like Procter and Gamble and the American Sugar Refinery. While the Philadelphia Quartz Company pioneered advancements in the uses of sodium silicate and silica-based products, most of this work took place at the company's research and development laboratory in Philadelphia, not the Baltimore plant, and was then disseminated to regional plants across the United States.

Historic research has not uncovered an association with persons who have made specific contributions to history, therefore the

MARYLAND HISTORICAL TRUST REVIEW

Eligibility Recommended: _____ **Eligibility Not Recommended:** X
Criteria: A B C D **Considerations:** A B C D E F G
MHT Comments: *Not individually eligible, but MAY contribute to potential NR District - research is incomplete at this time*
Jimi Tarkenton ✓ 11/17/2010
Reviewer, Office of Preservation Services **Date**
B. Kuntz 11/18/10
Reviewer, National Register Program **Date**

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plant is not eligible under Criterion B. The plant does not include significant examples of architecture, landscape architecture, engineering, or artwork; therefore, it is not eligible under Criterion C. The manufacturing and storage buildings of the plant are of utilitarian design, lacking significant architectural or engineering features. Investigations have not been conducted to determine whether the property has the potential to yield information important to history or pre-history, therefore eligibility under Criterion D cannot be assessed at this time.

The Philadelphia Quartz Baltimore Plant retains insufficient integrity for National Register eligibility. While the original massing and volumes of the plant's two major buildings, the Manufacturing Building and the Shipping Building, remain clearly legible, the exteriors have been altered with replacement sheathing, roofing, and infilled windows. With the exception of the sand tank elevator, all of the 1930 ancillary structures have been razed: a one-story garage on the west side of the property, the 23-by-15-foot Soda Ash Shed, the 17-by-17-foot Gas Producer House (coal gassification plant or coal bunker; razed 1940s), and the 36-by-17-foot Tank Scale Building (razed 2004).

Description of Property

The Philadelphia Quartz Baltimore Plant, constructed in 1930, is an early twentieth century industrial complex comprised of two major structures, the Manufacturing Building (1930) and the Shipping Building (1930); cylindrical holding tanks; and ancillary structures on a 5.17-acre site in the Locust Point area of South Baltimore. The site is bounded by East Fort Avenue (north), Decatur Street (east), and the CSX (formerly B&O) railroad tracks (west and south).

Names of plant structures referred to in this report are taken from the plant's original blueprint plan (C.A.S. 1930). The Manufacturing and Shipping buildings are sited parallel to each other near the north boundary of the lot. The Manufacturing Building has a rectangular footprint measuring 77 by 122 feet, rising approximately six stories in height. The steel-frame structure with concrete foundation is clad in corrugated panels of asbestos-protected galvanized metal siding, also known as "Galbestos." This appears to be a replacement of the original corrugated siding material seen in an early panoramic photo of the factory complex, probably taken in 1930 (Hughes Company n.d.). The gabled roof features a raised center monitor along the long elevation. Movable ventilation louvers, also clad in Galbestos, run along the length of the roof monitor. Industrial steel-sash windows at the second and third stories have been replaced with translucent fiberglass panels and infill louvered vents. The open-plan interior accommodates the original furnace, extensively altered since 1930, spanning almost the entire width of the building. The factory interior also includes the original brick masonry chimney stack, as well as modern catwalks, steam-release shafts, piping, and a small enclosed office space. The Manufacturing Building is in good to excellent condition, with no visible corrosion or deterioration.

The Shipping Building has a rectangular footprint measuring 52 by 122 feet, rising approximately four stories in height. The steel-frame structure with raised concrete foundation is clad in corrugated cement-asbestos sheathing. A gable roof is sheathed

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in corrugated steel panels, installed in 2003-2005 to replace the original asbestos-shingle roof, according to Thomas Mathis (2010), regional manufacturing manager for the PQ Corporation, formerly the Philadelphia Quartz Company. The west half of the gable roof has an asymmetrical profile to accommodate the height of four ten-and-a-half-foot-diameter tanks inside the building also marked on the 1951 Sanborn map. Industrial steel-sash ribbon windows have been replaced with translucent fiberglass panels on the north, west, and east elevations, and infilled with corrugated cement-asbestos sheathing on the south elevation. The Shipping Building is in good to excellent condition, with no visible corrosion or deterioration.

Between the Manufacturing and Shipping Buildings are eleven metal cylindrical tanks for storing sand, soda ash, and liquid sodium silicate, approximately thirty feet in diameter and four to seven stories in height. Placement of the tanks largely follows the original 1930 plans and 1951 Sanborn map. Three tanks are modern additions and others may be replacements. Two tanks on the west side of the cluster, the first with an attached elevator structure, and the second just south of the first, appear to be the original 1930 tanks and original 1930 elevator clad in Galbestos sheathing (Hughes Company n.d.). These tanks are in good to excellent condition, with no visible corrosion or deterioration. The south elevation of the elevator is in fair to poor condition, with large areas of the sheathing showing extensive corrosion, caused by delamination of the sheathing that exposed the unpainted metal.

Modern structures added to the site include a small, one-story brick office building and two-story metal shed bay at the northwest corner of the property; a small one-story metal truck shed south of the Manufacturing Building; and two small metal holding tanks at the rear of the property.

The flat industrial site also includes the partially-paved remnants of railcar tracks along the west side of the property, leading to the manufacturing building and holding tanks from the CSX railroad tracks just south of the property boundaries. This is Track #7 as noted on the blueprint plan (C.A.S. 1930) and seen in the foreground of the circa 1930 photo (Hughes Company n.d.). Track #1 along the east side of the property is still in use.

History of the Property

In the eighteenth century, the Locust Point peninsula between the Middle and Northwest Branches of the Patapsco River was known as Whetstone Point, the name of the 1661 land patent to Charles Gorsuch. It remained unoccupied and was bought by the Principio Company, a British iron manufacturer, in the 1720s for iron ore rights. By the Revolutionary War, the Principio Company iron works had firmly established a tradition of industrial land use on Whetstone Point that would continue to the present day (Power 1993).

Beginning in 1849 with the completion of the Baltimore & Ohio Railroad's Locust Point Marine Terminal, the Locust Point port and industrial district became one of the largest marine freight complexes in the United States. The port facilities also included the Locust Point Immigration Center, known as "Baltimore's Ellis Island," one of the most important immigrant processing centers on the eastern seaboard prior to World War I. At the turn of the twentieth century, Locust Point industry centered around glass and pottery works, lumber yards, fertilizer processing, and oyster and fruit canning (Beirne 1980, 45).

MARYLAND HISTORICAL TRUST REVIEW**Eligibility Recommended:** ☐**Eligibility Not Recommended:** ☐**Criteria:** ☐ A ☐ B ☐ C ☐ D**Considerations:** ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G**MHT Comments:**_____
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Locust Point became a designated industrial district under the city's first zoning ordinance, passed on May 19, 1923, but retained a dual residential-industrial identity, with a thriving working-class community. By the 1920s and '30s, Locust Point industries had diversified further to include larger regional factories for national companies, such as the Procter & Gamble Plant, the American Sugar Refinery, and the Coca-Cola Company Factory. These plants each employed hundreds of workers, many of whom lived in the modest late-nineteenth- and early-twentieth-century rowhouses of the working-class Locust Point neighborhood.

The Philadelphia Quartz Baltimore Plant was constructed in 1930 by the Consolidated Engineering Company for the Philadelphia Quartz Company, which changed its name to PQ Corporation in 1978. Founded in Philadelphia, Pennsylvania in 1861 by Joseph Elkington, a Quaker, the company manufactured liquid sodium silicate, sometimes called liquid or water-soluble glass, a key ingredient in soaps and detergents. By 1931, the company had established nine branch plants in the United States, most of which were constructed in the 1920s (Philadelphia Quartz Company 1931). Plants were located in Chester, Pennsylvania; Anderson, Indiana; Jeffersonville, Indiana; Buffalo, New York; Kansas City, Kansas; Rahway, New Jersey; St. Louis, Missouri; Utica, Illinois; and Baltimore, Maryland.

The company selected locations for new branch plants after conducting a study of raw material sources and shipping conditions. According to Mathis (2010), the company has always sought close proximity to soap and detergent factories, since the soap industry has been the chief consumer of Philadelphia Quartz's liquid sodium silicate, which is expensive and difficult to ship over long distances. This was certainly a factor in the 1920s, when "In order to save freight on shipping large quantities of water, new [Philadelphia Quartz] factories sprang up closer to the consuming markets." (American Chemical Society 1928)

The 1929 construction of Procter & Gamble's Baltimore plant in Locust Point was likely a key factor in the Philadelphia Quartz Company's selection of the East Fort Avenue site. Proximity to the B&O Railroad lines and Locust Point Marine Terminal facilitated the shipment of liquid sodium silicate and its components--soda ash and sand. Procter & Gamble purchased sodium silicate from the Philadelphia Quartz Company as early as the 1860s (Philadelphia Quartz Company 1931, 21). The Philadelphia Quartz Baltimore Plant sold sodium silicate to other Baltimore companies, including the Chesapeake Paperboard Company, with its factory sited just a few blocks west of the Philadelphia Quartz plant, and Lever Brothers, which began operating its Baltimore branch plant in 1939. The Philadelphia Quartz Baltimore Plant employed far fewer workers than Procter & Gamble and other large Locust Point plants, primarily because of its comparatively smaller scale of operations and reduced labor needed for manufacturing and shipping sodium silicate.

In the late nineteenth and early twentieth century, the site of the Philadelphia Quartz Baltimore Plant was owned by descendants of John Eager Howard. Howard was a key figure in Maryland history who served as a colonel in the Continental Army, a member of the Continental Congress, governor of Maryland, and U. S. Senator. Fill material from debris of the Great Baltimore Fire of 1904 was used to extend the shoreline around the Locust Point peninsula, including land to the south of the Philadelphia Quartz tract (Hopkins 1876, Bromley 1906).

William Martin of Philadelphia, Pennsylvania purchased the five-acre tract fronting on East Fort Avenue in October 1929 from

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Howard's heirs: William R. and Louisa T. Howard; Ellen H. Bayard; Benjamin C. and Elizabeth W. Howard; H. Benthall and Frances W. Marshall; Jean G. Marshall; Julian H. and Eleanor H. Marshall; Elizabeth G. Howard; and Charles McHenry Howard as trustee for Thomas H. and Ellen K.H Morgan and attorney for Charlton H. Morgan (Deed Book SCL 5060, 241). Shortly thereafter in February 1930, Martin and his wife Mary C. Martin sold the property to Philadelphia Quartz Company for "the sum of five dollars (\$5.00) and other good and valuable considerations" (Deed Book SCL 5089, 367). At the time of the property transfer, Martin served as a director on the board of the Philadelphia Quartz Company, and was also employed as Traffic & Purchasing Manager (Philadelphia Quartz Company 1956). He likely received additional compensation from the company for the transfer of the Baltimore plant property.

Plans for the Philadelphia Quartz Company's new Baltimore factory were drawn up by the time Martin purchased the tract, which fronted 243 feet on East Fort Avenue and 751 feet on Decatur Street, running back to the B&O Railroad tracks along the south shore of the Locust Point peninsula. In November 1929, the Consolidated Engineering Company of Baltimore submitted the factory plans to the Baltimore City Bureau of Buildings for a building permit. The plans included construction of a 77-by-122-foot manufacturing building, 52-by-122-foot shipping building, and 36-by-18-foot scale building, with a total construction cost of \$28,000 (The Sun (Baltimore), November 20, 1929). By comparison, the 1929 Procter & Gamble plant cost \$4.5 million to construct (The Sun (Baltimore), February 27, 1929).

Based on aerial photos from the 1950s, Philadelphia Quartz's early-twentieth-century branch plants differed widely in the number, size, form, and arrangement of structures (Philadelphia Quartz Company 1956). The Baltimore plant was smaller than most other branch plants, but similar in layout to the Jeffersonville, Indiana plant, which was built soon after the Baltimore plant. Like the Baltimore plant, the Jeffersonville plant complex was centered on a manufacturing building and a shipping building, oriented parallel to each other with cylindrical tanks between them. The Jeffersonville shipping building bore a strong resemblance to the Baltimore plant's Shipping Building, with an asymmetrical gable roof and ribbon windows. However, the Jeffersonville manufacturing building lacked the Baltimore Manufacturing Building's distinctive roof monitor. The Philadelphia Quartz Company was clearly not using a standard set of plans or prefabricated factory buildings to construct their branch plants but rather customizing each factory complex according to localized factors.

The Philadelphia Quartz Company expanded its Baltimore plant property in 1953 with the purchase of a 42,099 sq. ft. lot from the Real Estate & Improvement Company (Deed Book MLP 9350, 396) and a 634 sq. ft. lot from the Baltimore & Ohio Railroad Company (Deed Book MLP 9350, 398). The lots were to the south of the original parcel boundary and included decommissioned portions of Decatur and Clagett Streets.

After almost eighty years in operation, the Philadelphia Quartz Baltimore Plant was idled in May 2009 during the nationwide economic recession. The multi-national PQ Corporation, which changed its name from the Philadelphia Quartz Company in 1971 and is now owned by the Carlyle Group, continues to use the plant as a materials transfer station, although sodium silicate is no longer produced in its furnace. The future of the plant's operation is uncertain.

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National Register of Historic Places: Procter & Gamble Baltimore Plant. 1999. Baltimore: Maryland Historical Trust.

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Criteria: ____ A ____ B ____ C ____ D

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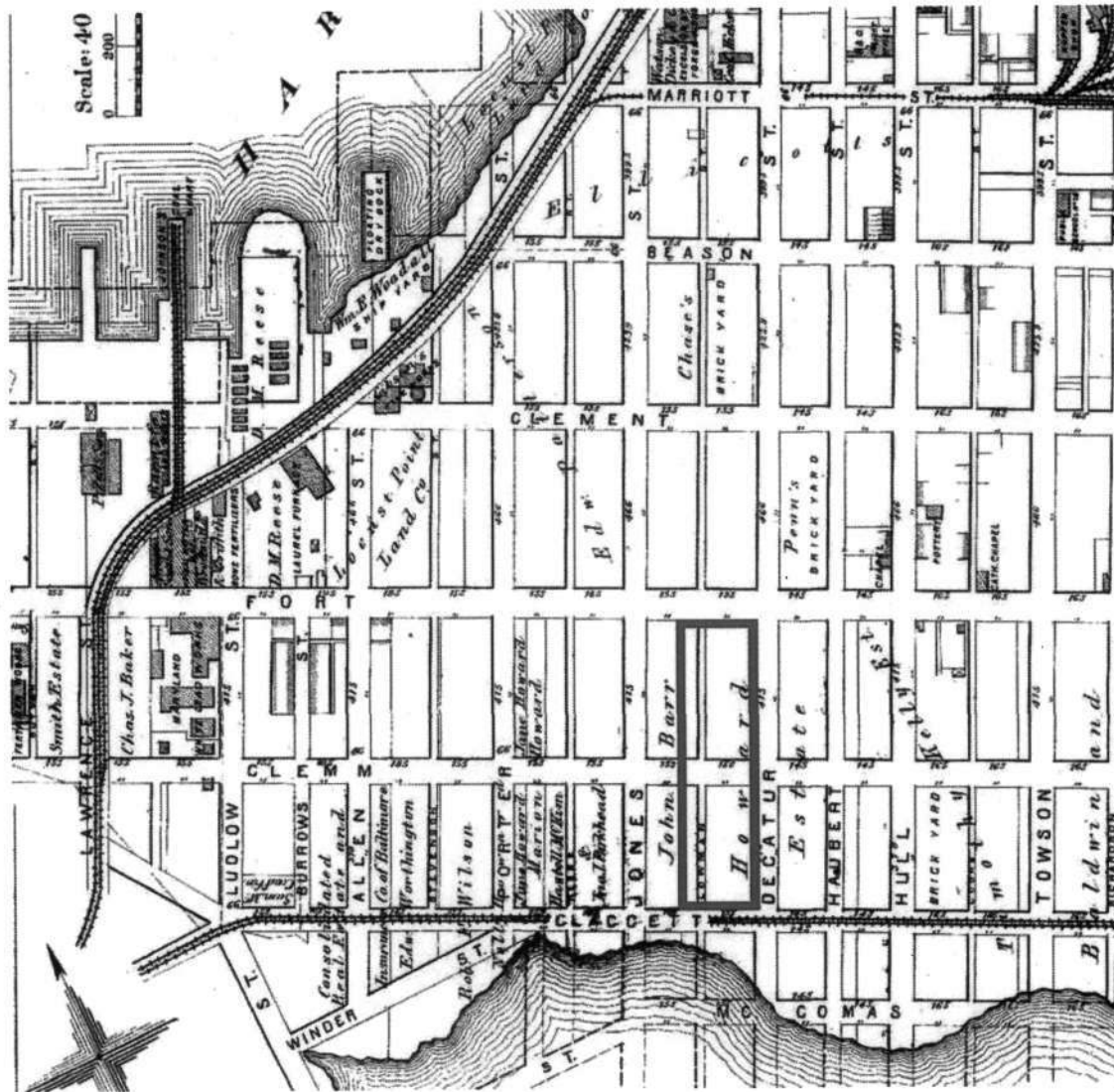
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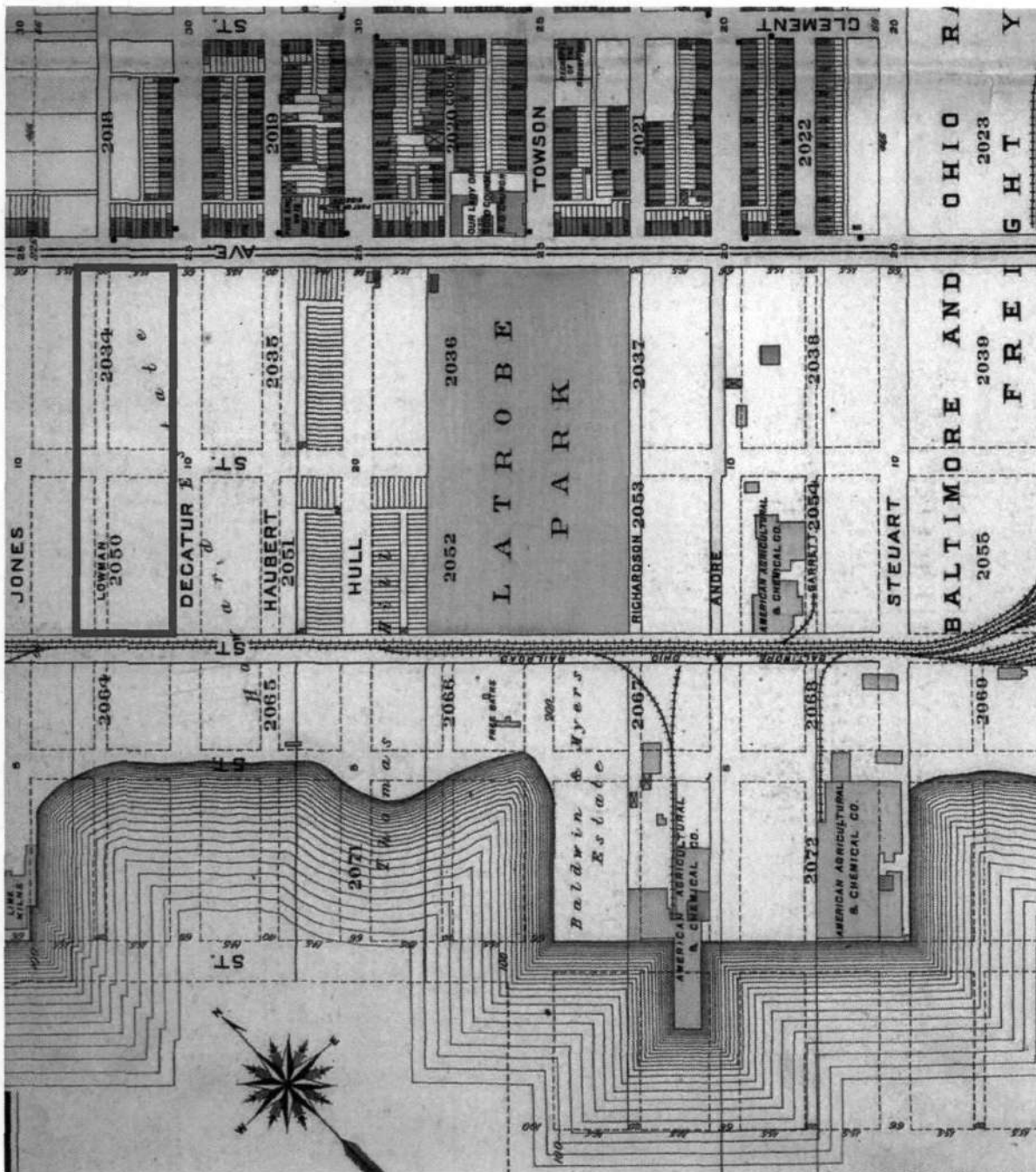


Philadelphia Quartz, Locust Point, Baltimore, Maryland, 1876

Source: G.M. Hopkins, 1876 Atlas of Baltimore City, Part of Ward 17, Vol. 1, Plate 1.

Note: Red rectangle illustrates parcel boundary found on the 1930 deed, not the current boundary.

Figure 1-1

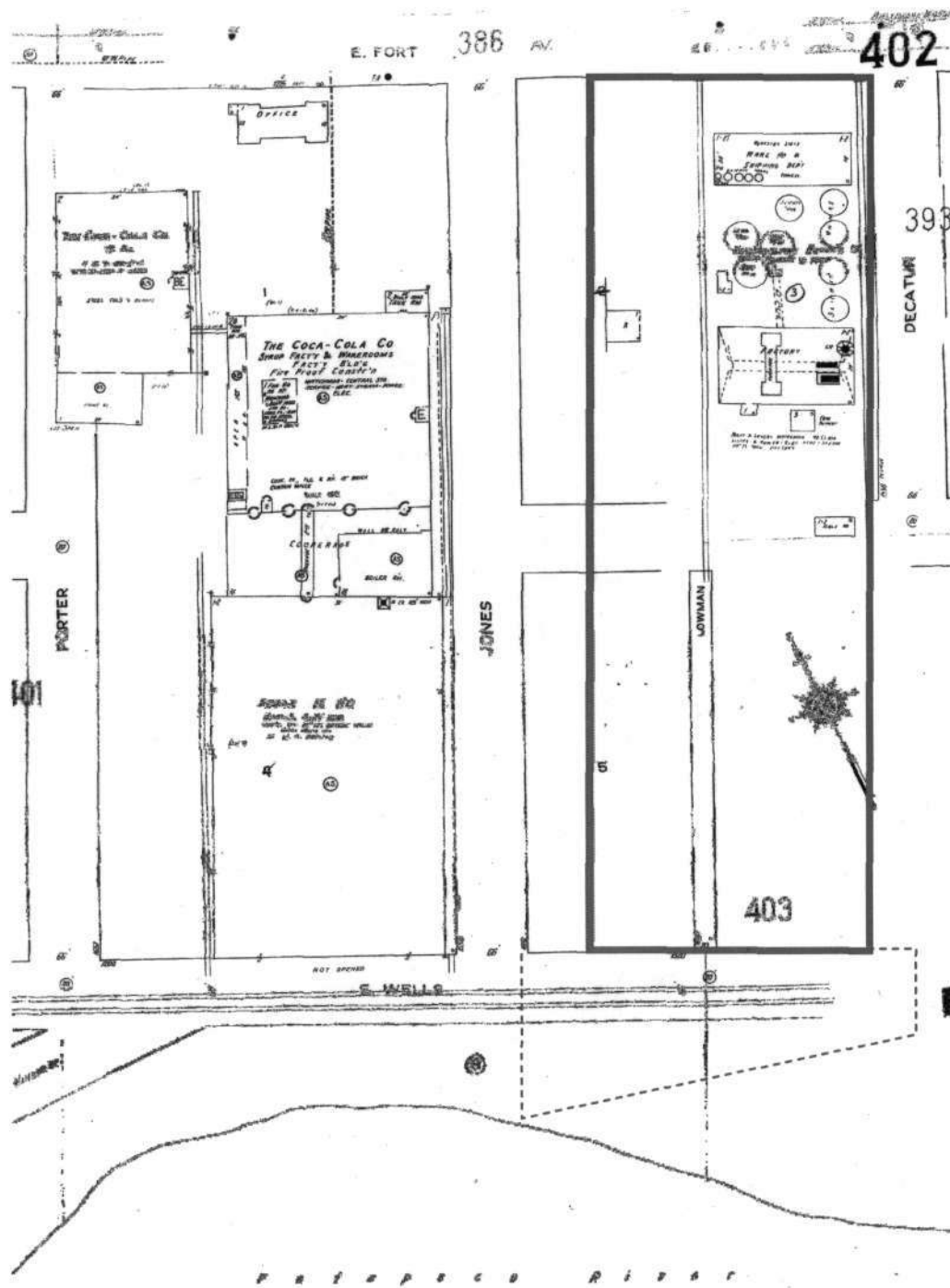


Philadelphia Quartz, Locust Point, Baltimore, Maryland, 1906

Source: GW Bromley and Company, Atlas of Baltimore, Md., 1906. Ward 24

Note: Red rectangle illustrates parcel boundary found on the 1930 deed, not the current boundary.

Figure 1-2



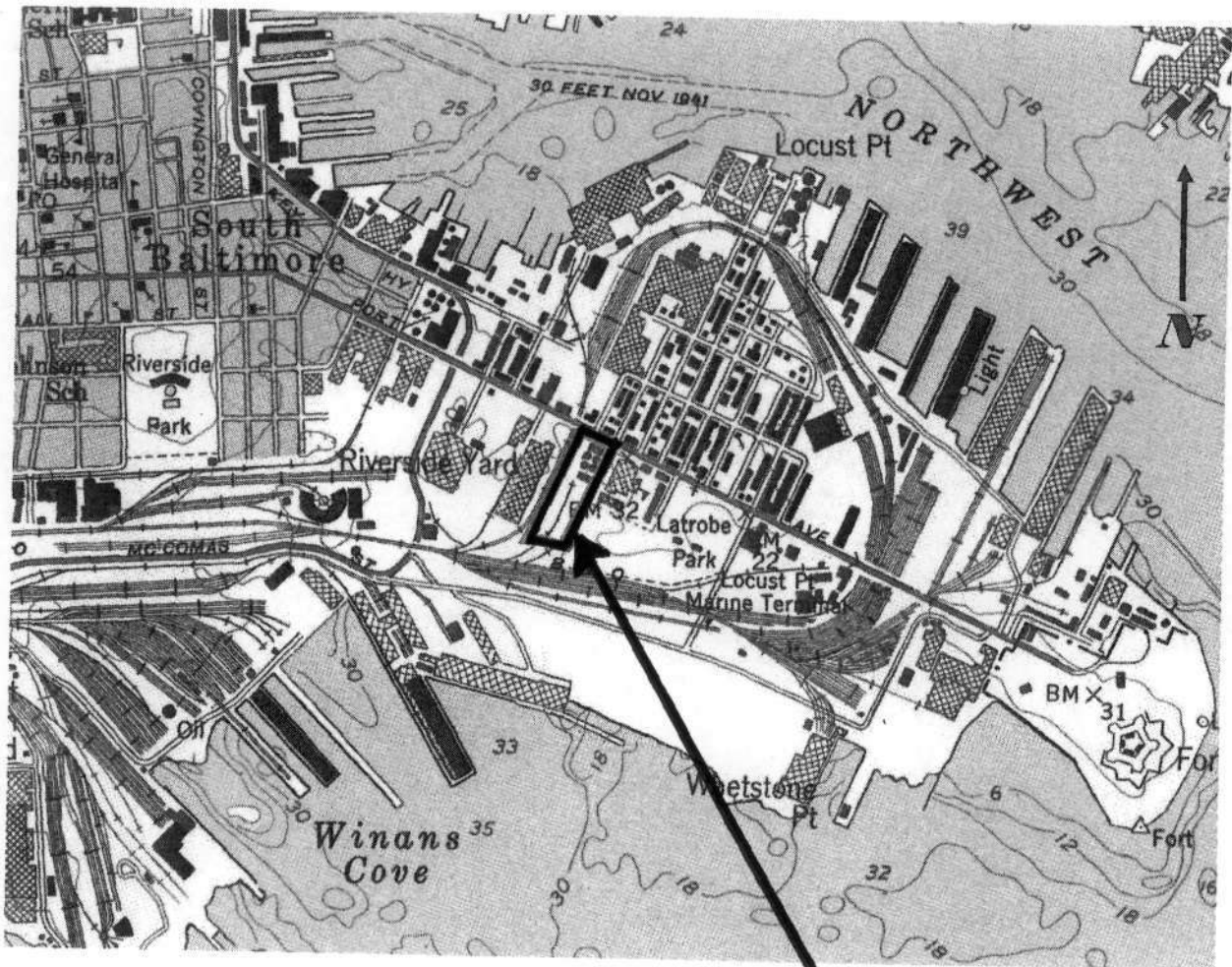
Philadelphia Quartz, Locust Point, Baltimore, Maryland, 1951

Source: Sanborn Map Company, Fire Insurance Maps 1951

Note: Red rectangle illustrates parcel boundary found on the 1930 deed. The dashed line shows the triangular piece of land, below Wells St, that was added in 1953.

Figure 1-3

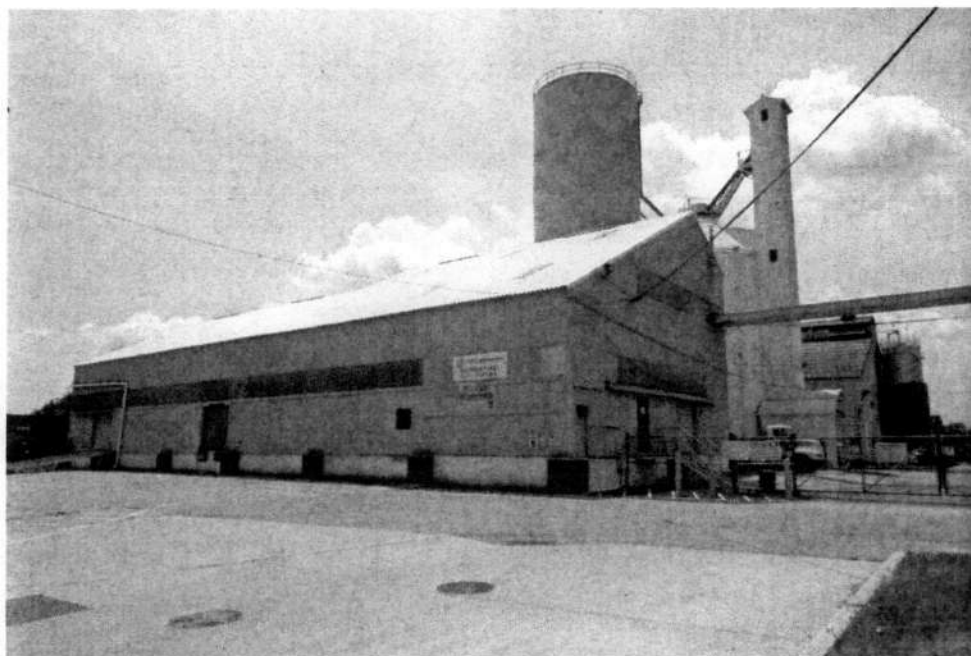
BALTIMORE EAST QUAD



Note: Red rectangle illustrates the current parcel boundary which includes both the original 1930 parcel and a triangular piece of land added in 1953.

Figure 1-4

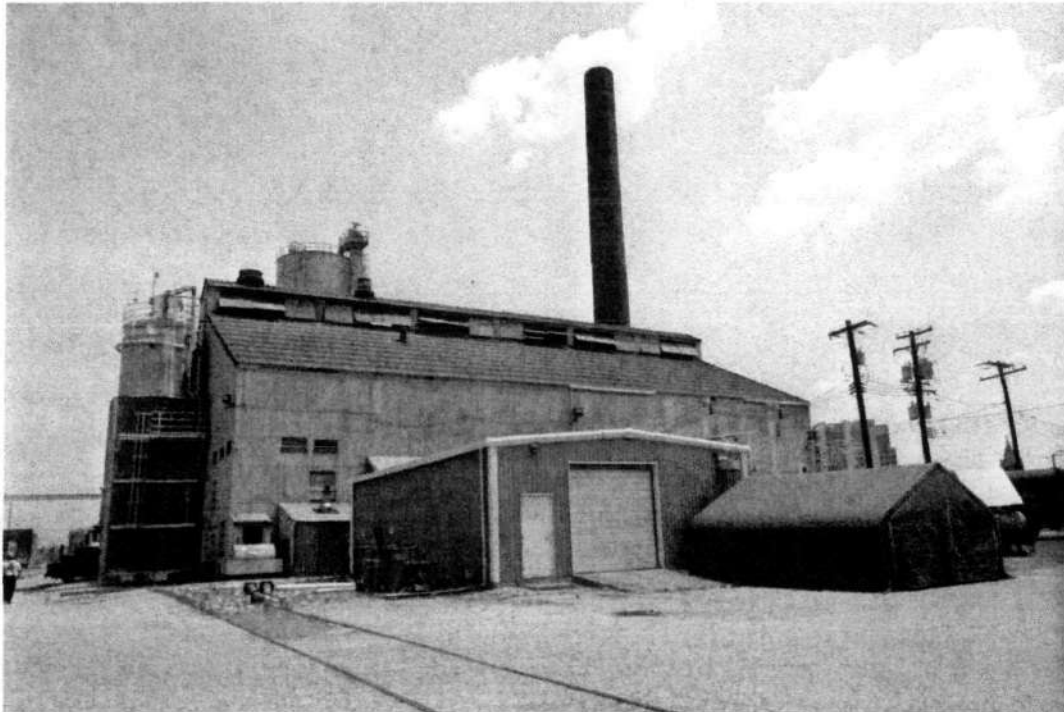
1301 East Fort Avenue
Philadelphia Quartz Baltimore Plant – Photo Log



PQ_2010-06-23_01
Shipping Building (1930), north and west elevations

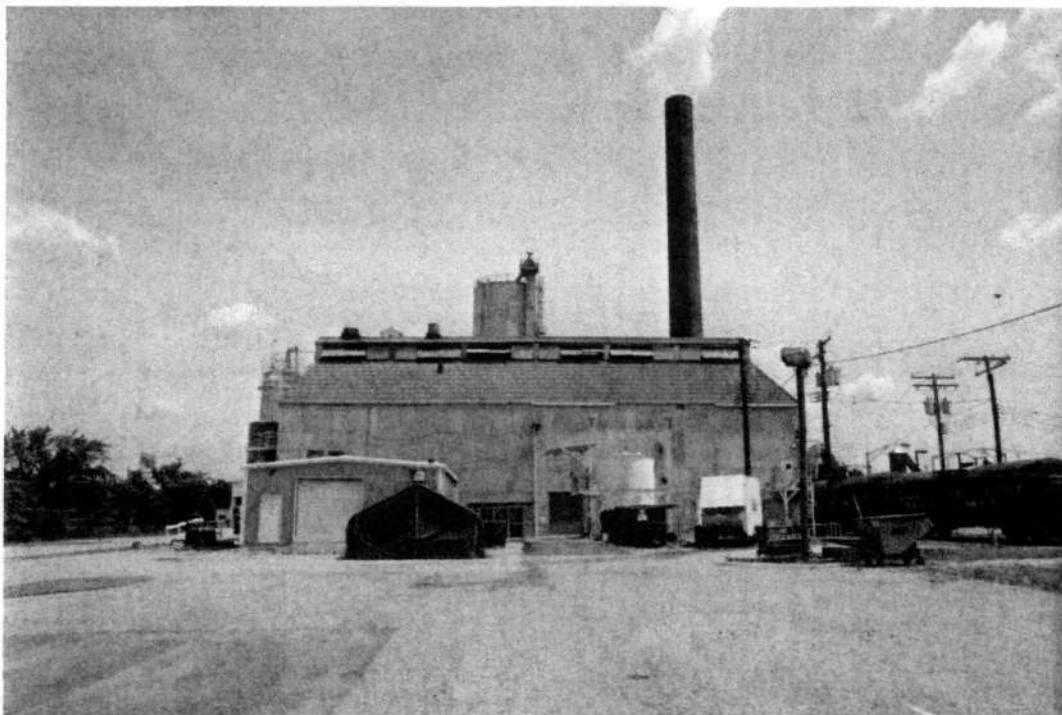


PQ_2010-06-23_02
Shipping Building, west elevation; Plant complex, looking south, partial view of storage tanks,
tank elevator, and Manufacturing Building (l-r)



PQ_2010-06-23_03

Manufacturing Building (1930), west and south elevation,
with modern garage and paved railroad tracks in foreground



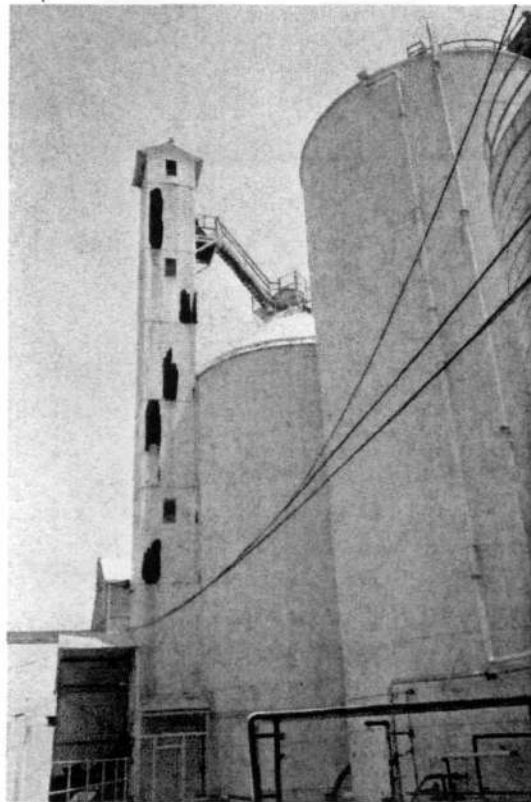
PQ_2010-06-23_04

Manufacturing Building (1930), south elevation, with modern garage in foreground



PQ_2010-06-23_05

Plant complex, looking east: Shipping Building, storage tanks, Manufacturing Building (l-r)



PQ_2010-06-23_06

Storage tanks (1930) and elevator (1930), looking northeast

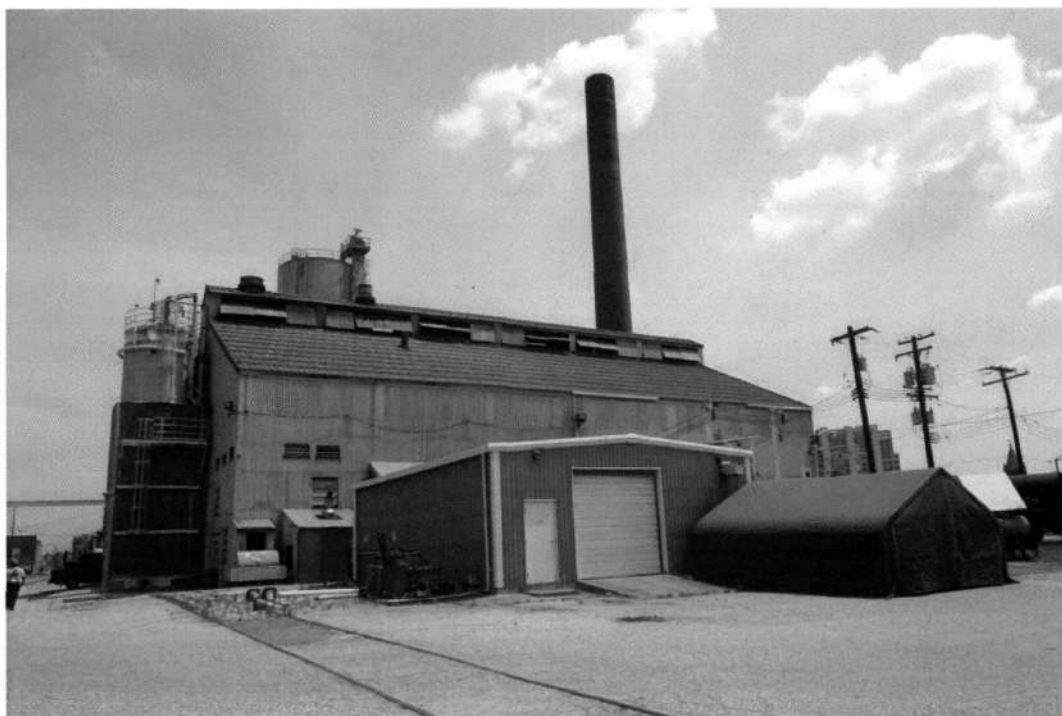
1301 East Fort Avenue
Philadelphia Quartz Baltimore Plant – Photo Log



PQ_2010-06-23_01
Shipping Building (1930), north and west elevations



PQ_2010-06-23_02
Shipping Building, west elevation; Plant complex, looking south, partial view of storage tanks,
tank elevator, and Manufacturing Building (l-r)



PQ_2010-06-23_03

Manufacturing Building (1930), west and south elevation,
with modern garage and paved railroad tracks in foreground



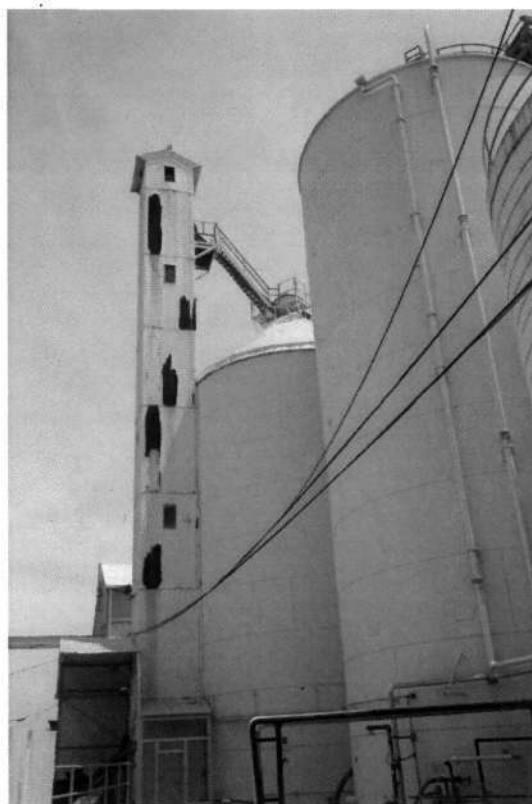
PQ_2010-06-23_04

Manufacturing Building (1930), south elevation, with modern garage in foreground



PQ_2010-06-23_05

Plant complex, looking east: Shipping Building, storage tanks, Manufacturing Building (l-r)



PQ_2010-06-23_06

Storage tanks (1930) and elevator (1930), looking northeast